car throughout all the other cars so connected, and thus give steadiness to the whole train. This result will not only greatly facilitate the ease in passing from one car to another, but will enable trains of the same weight and motive power to be run safely and comfortably at higher speeds over the same road-bed than heretofore.

While I have described and shown a frame-plate backed by springs as the preferred form for my vertically-arranged spring-buffer, which also performs the said office of counteracting the impulses which generate oscillating or swaying movements in trains of cars in motion, I do not limit myself to the physical presence of a frame or rectangular plate of metal or wood backed by springs, as described. If the entrance-platforms of the cars are to be inclosed by a vestibule, as shown in the drawings, then a frame is obviously most desirable, because it enables the joint between two adjacent coupled cars to be tightly closed against the entrance of dust and cinders; but my invention will be embodied if, in place of a continuous frame, *a*, there be substituted a system of separate plates or buffers backed by springs arranged framewise and so as to carry out the mode of operation of the frame-plates, as hereinbefore described; and therefore in this specification I include under the term "frame-plate" the construction specifically shown, as well as the formal and obvious modification suggested. My invention will also be employed if, in combination with the ordinary platform-buffer in common use in railway-carriages, there be arranged a spring-buffer above the doorway or near to the roof of the car, so that when the said cars are coupled the confronting faces of the said elevated buffers upon each of the cars will press frictionally against each other under the force of pressure-springs applied to the rear faces of the buffer.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the end of a railway-car, of a frame-plate or equivalent series of buffers backed by springs, arranged with its face in a vertical plane and normally projecting beyond the end of the car, whereby, upon the coupling of two cars, a spring-buffer will be interposed between the superstructures of such adjacent cars above their platforms, and also frictional surfaces under opposing spring-pressures to prevent the racking of the car-frames upon sudden stoppages and to oppose the tendency of the cars to sway laterally when in motion, substantially as hereinbefore set forth.

2. The combination of a spring-buffer or friction-plate with the ends of each of the adjacent cars of a train, said buffers being located on the ends of the superstructures of the cars, respectively, and substantially at the tops of the same, and so arranged that when the two cars are coupled the faces of the buffers will bear against each other in contact under pressure, substantially as and for the purposes specified.

HENRY HOWARD SESSIONS.

Witnesses:
FREDERICK C. GOODWIN,
E. L. HUBER.